

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
(Attorney Docket No. 14183US02)

In the Application of:

Ed H. Frank, et al.

Serial No. 10/658,734

Filed: September 9, 2003

For: METHOD AND SYSTEM FOR
OPTIMAL LOAD BALANCING IN A
HYBRID WIRED/WIRELESS
NETWORK

Examiner: Simon A. Goetze

Group Art Unit: 2617

Confirmation No. 2791

Electronically filed on 20-MAR-2008

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

The Applicant requests review of the final rejection in the above-identified application, stated in the final Office Action mailed on November 16, 2007 (hereinafter, the Final Office Action) with **a period of reply through March 20, 2008, pursuant to the attached Petition for One Month Extension of Time.** The Applicant also requests review of the arguments stated on page 2 of the Advisory Office Action mailed on February 20, 2008 (hereinafter, the Advisory Office Action). No amendments are being filed with this request.

This request is being filed with a Notice of Appeal. The review is being requested for the reasons stated on the attached sheets.

REMARKS

The present application includes pending claims 1-22 and 24-26, all of which have been rejected. The Applicant respectfully submits that the claims define patentable subject matter.

Claims 1-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haddad (US Patent Application Publication 2003/0133420, hereinafter Haddad), in view of Neumiller et al. (US Patent 6,341,222, hereinafter Neumiller).

I. Examiner's "Response to Arguments" in the Final Office Action and Advisory Office Action

The Examiner states the following in the Final Office Action:

Haddad is discussing that load information about the access point is sent back to the requesting access device. Therefore disclosing the limitation of "sending said determined load of said each one of said each one of said plurality of access points to said network device". Additionally, Applicant emphasized that this must occur for "each" access point. This limitation is taught because the claim states this communication must occur between "at least one" access point, and therefore "at least one" access point has been understood as being "one" access point. Furthermore, Applicant states that the hosts 20-22 (of Haddad) are the "access devices." The Examiner respectfully notes that hosts 20-22 (of Haddad) were not relied upon to form the basis of the rejection as defining "access devices."

See the Final Office Action at page 7. The Applicant respectfully disagrees and points out that the relevant claim limitation from Applicant's claim 1 is that a **determined load for each of the access points** (i.e., a load that has been determined for every access point) is sent to the access device. The Applicant is unsure as to what exactly is meant by the Examiner's statement: *"This limitation is taught because the claim states this communication must occur between "at least one" access point, and therefore "at least one" access point has been understood as being "one" access point."* **None of the claims state that "this communication must occur between "at least one" access point", as stated by the Examiner. Again, Applicant's claim 1 very clearly states that what is communicated to the access device is a determined load for each of the access points, which is never disclosed by Haddad.** To reiterate from Applicant's August 22, 2007 argument, Haddad's controller 13 only measures the quantity of data that is addressed to the controller 13 (equated by the Examiner to the "access device"). Haddad's controller 13 never receives determined load for each of the access points.

The Examiner further states the following in the Final Office Action:

In response to applicant's argument that Neumiller et al. is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Detiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Neumiller et al. was only relied upon to teach that load information can be sent to a requesting access device based upon a request, as opposed to the access device calculating the load itself. Therefore, Neumiller et al. may be relied upon to modify Haddad.

See the Final Office Action at page 7. The Applicant points out that the August 22, 2007 argument does not state that Neumiller is "nonanalogous art." Instead, the Applicant points out that regardless of what Neumiller allegedly teaches, **Neumiller cannot modify Haddad as such modification would change the principle of operation of the data transfer network of Haddad.** Therefore, pursuant to M.P.E.P. § 2143.01, the teachings of the references (Haddad and Neumiller) is not sufficient to render the claims prima facie obvious.

In the Advisory Office Action, the Examiner continues to equate "at least one of a plurality of access points" to "one access point". The Applicant points out that this rationale fails with regard to at least the second claim limitation of Applicant's claim 1, where a load determination is performed with regard to every one of the access points in the "plurality of access points." In other words, load determination for at least two access points is performed. As previously stated in the January 16, 2008 response, neither Haddad nor Neumiller disclose at least this limitation.

The Applicant maintains all arguments stated in the August 22, 2007 and January 16, 2008 responses.

REJECTION UNDER 35 U.S.C. § 103

II. The Proposed Combination of Haddad and Neumiller Does Not Render Claims 1-22 and 24-26 Unpatentable

The Applicant turns to the rejection of claims 1-22 and 24-26 as being unpatentable over Haddad in view of Neumiller. The Applicant notes that the proposed combination of Haddad and Neumiller forms the basis for all of the pending rejections.

A. Independent Claims 1, 9, and 17

With regard to the rejection of independent claim 1 under 103(a), the Applicant submits that the combination of Haddad and Neumiller does not disclose or suggest at least the limitation of "sending said determined load of said each one of said plurality of access points to said access device," as recited by the Applicant in independent claim 1. The Final Office Action states the following:

Consider claims 1,9, and 17, Haddad discloses a method, machine-readable storage having stored thereon a computer program, and a system for providing load balancing in a hybrid wired/wireless local area network (Abstract; Page 2, Paragraphs 0002-0004), the method comprising:

...

sending said determined load of said each one of said plurality of access points to said network device (the controller uses the determined value to determine the

load - Page 3, Paragraphs 0035 and 0040).

However, Haddad discloses that the load balancing procedure performed by the access device receives load information about an access point by measuring the quantity of data addressed to it and received from it. Neumiller et al. discloses that the a request for the load is made and load information is sent to the access device in order to determine the most appropriate access point (Figures 4 and 5 -Abstract; Column 5, Lines 9-30 and 51-67; Column 6, Lines 1-4 and 17-30).

See the Final Office Action at pages 3-4 (emphasis added). Referring to Figure 1 of Haddad, Haddad discloses that the software agent 13a, which is part of the communications controller 13, measures the load on each of the nodes 14-16 by measuring the quantity of data addressed to the controller 13, and received from it. See Haddad at paragraph 0035. The communication controller 13 also determines whether or not to provide a newly requested link based on the load of nodes 14-16. See *id.* at paragraph 0040. However, **Haddad, including paragraphs 0035 and 0040 of Haddad, does not disclose or suggest that a determined load for each of the access points (nodes 14-16) is communicated to an access device (any of the hosts 20-22).** Instead, the communications controller 13, using the software agent 13a, simply measures the load for nodes 14-16 and determines whether or not a newly requested link may be provided. There is no communication in Haddad of a determined access point load, **for each of the access points, to an access device. Applicant's claim 1 very clearly states that what is communicated to the access device is a determined load for each of the access points, which is never disclosed by Haddad.**

With regard to the second reference (Neumiller) used by the Examiner, the Applicant points out that Neumiller does not overcome the deficiencies of Haddad. For example, the Applicant points out that Neumiller does not disclose any processing with regards to access points in a wired/wireless LAN. Instead, Neumiller discloses call anchoring of cellular base stations, which use selection circuitry within the base stations. See Neumiller at Abstract.

The Applicant also respectfully draws the attention of the Examiner to the prohibitions as set forth in M.P.E.P. § 2143.01, which states that “[i]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the reference are not sufficient to render the claims *prima facie* obvious.” See M.P.E.P. § 2143.01. **Regardless of what Neumiller allegedly teaches, Neumiller cannot modify Haddad as such modification would change the principle of operation of the data transfer network of Haddad.** Haddad discloses that the software agent 13a, which is part of the communications controller 13 within the server 12, is the single device/mechanism that measures the load on each of the nodes 14-16 by measuring the quantity of data addressed to the controller 13, and received from it. See Haddad at Figure 1 and paragraph 0035. The communication controller 13 then determines whether or not to provide a newly requested link based on the load of the access points (nodes 14-16). See *id.* at paragraph 0040. In this regard, the data transfer network of Haddad only uses the controller 13 within server 12 to determine the load of nodes 14-16 and, based on the determined load, the quality of service provided to hosts 20-22. The data transfer network of Haddad does not utilize any of the access devices (hosts 20-22) to receive the load data for the nodes 14-16 as the entire quality of service processing is

handled by the controller 12 and not by any of the hosts 20-22. For at least these reasons, the proposed modification of Haddad is prohibited and the obviousness rejection cannot be maintained.

Furthermore with regard to the rejection of claim 1, the Applicant points out that neither Haddad nor Neumiller disclose receiving a polling message and determining a load on each access point, responsive to the polling message, as recited by the Applicant in claim 1.

Neumiller does not overcome the deficiencies of Haddad. Therefore, the Applicant maintains that the combination of Haddad and Neumiller does not disclose or suggest at least the limitation of "sending said determined load of said each one of said plurality of access points to said access device," as recited by the Applicant in independent claim 1. Accordingly, the proposed combination of Haddad and Neumiller does not render independent claim 1 unpatentable, and a *prima facie* case of obviousness has not been established. The Applicant submits that claim 1 is allowable. Independent claims 9 and 17 are similar in many respects to the method disclosed in independent claim 1. Therefore, the Applicant submits that independent claims 9 and 17 are also allowable over the references cited in the Office Action at least for the reasons stated above with regard to claim 1.

The Applicant also reserves the right to argue additional reasons beyond those set forth above to support the allowability of claims 1, 9, and 17.

B. Rejection of Dependent Claims 2-8, 10-16 and 18-22 and 24-26

The Applicant maintains the argument stated in pages 18-19 of the January 16, 2008 response, relating to the dependent claims.

III. Conclusion

Based on at least the foregoing, the Applicant believes that all claims 1-22 and 24-26 are in condition for allowance and requests that the outstanding rejections be reconsidered and withdrawn. The Commissioner is authorized to charge any necessary fees or credit any overpayment to the Deposit Account of McAndrews, Held & Malloy, Ltd., Account No. 13-0017.

Respectfully submitted,

Date: 20-MAR-2008

By: /Ognyan I. Beremski/
Ognyan Beremski, Reg. No. 51,458
Attorney for Applicant

McANDREWS, HELD & MALLOY, LTD.
500 West Madison Street, 34th Floor
Chicago, Illinois 60661
Telephone: (312) 775-8000
Facsimile: (312) 775 – 8100 (OIB)